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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,237	08/13/2001	Stephen F. Gass	SDT 309	8812

27630 7590 07/14/2005

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EXAMINER	
ALIE, GHASSEM	
ART UNIT	**PAPER NUMBER**
3724	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/929,237	GASS ET AL.	
	Examiner	Art Unit	
	Ghassem Alie	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11,20-22 and 28-31* is/are pending in the application.

4a) Of the above claim(s) *4-9,22 and 29* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 11, 20, 21, 28, 30, and 31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *08/17/04-06/04/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Comment

1. This Office action is in response to the amendment filed on 02/07/05 where claims 1-3, 11, 20, 21, 28, 30, and 31are pending, claims 4-9, 22, and 29 have been withdrawn, and claims 10, 12-19, and 23-27 have been canceled.

2. The provisional rejection of claim 20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 11-13 of copending Application No. 10/215,929 is withdrawn, since Application No. 10/215,929 has been abandoned

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 11, 20, 21, 28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda (4,117,752) in view of Zettler (4,048,886) and in further view of Nagel (5,648,644). Regarding claim 1, Yoneda teaches a woodworking machine including a cutting tool 14 for cutting workpieces, a motor 10 configured to drive the cutting tool 14, and detection system configured to detect a dangerous condition between a person and the cutting tool 14. Yoneda also teaches a reaction system 20 controllable to stop the cutting tool 14 if the dangerous condition is detected by the detection system. See Figs. 1-5 and col. 2, lines 14-65 and col. 3, lines 14-26 in Yoneda. Yoneda does not teach a control system configured to determine the operability of the reaction system without having to operate the reaction

system and to disable the motor if the reaction system is inoperable. However, the use of a control system to test the performance of a brake system, or a reaction system, and disable the driving member of a cutting device or the like is well known in the art such as taught by Zettler. Zettler teaches a control system 400 configured to determined the operability of a brake mechanism or a reaction system 18 and to disable at least a motor if the brake mechanism or the reaction system 18 is inoperable. See Figs. 2 and 6a and col. 1, lines 35-67 and col. 3, lines 1-28 and col. 4, lines 22-68 in Zettler. It would have been obvious to one skilled in the art at the time of the invention to equip the control system of Yoneda's reaction system with the monitoring capability as taught by Zettler in order to test the performance and operability of the reaction system and ensure the safety of the operator during the operation of the woodworking machine. Yoneda, as modified by Zettler does not teach that the control system determines the operability of the reaction system without having to operate the reaction system. Zettler control system 400 determines that the brake or the reaction system is defective or abnormally worn. Zettler does not teach that the reaction system's defects are determined without the operation of the reaction system. However, the defects of the brake or the reaction system can be determined without the operation of the reaction system such as taught by Nagel. Nagel teaches a control system 27 which is connected to a brake sensor 13 which monitors brake pads 12 of a brake 9 without operating the brake or the reaction system. The brake sensor 13 monitors the excessive temperature and the wear of the brake pads even if the brake pads are not operating. See Figs. 1-12 and col. 3, lines 9-55 in Nagel. It would have been obvious to one skilled in the art at the time of the invention to test operability of Yoneda's reaction system, as modified by Zettler, without

operating the reaction system as taught by Nagel in order to determine the defects of the reaction system when the reaction system is operating as well as the time that the reaction system is not operating.

Regarding claim 11, Yoneda, as modified by above, teaches everything noted above including that the brake mechanism or the reaction system 20 is adapted to be electrically coupled to the control system, as modified by Zettler, and where the control system is configured to disable the motor if the brake mechanism or the reaction system is not coupled to the control system. Yoneda's control system, as modified by Zettler, inherently disable the motor if the braking system is not coupled to the control system, since the control system also disable the motor if the braking system is not operable.

Regarding claims 20 and 21, Yoneda, as modified above, teaches everything noted above including that the control system is adapted to at least check a portion of the brake system or the reaction system to verify that the portion of the brake system or the reaction system is operational. Yoneda's control system, as modified by Zettler, tests the braking system as the whole, which also includes a portion of the braking system. Yoneda's control system, as modified by Zettler, also is not running or actuating the motor if the brake system or the reaction system 20 is not operational. The control system also is capable of testing the detecting system prior to actuation of the motor as taught by Nagel.

Regarding claims 28 and 30, Yoneda as modified by above, teaches everything noted above including a reaction system adapted to perform a specified action upon detection of a dangerous condition and a self-test system adapted to test operability of the brake system.

5. Claims 2, 3, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda in view of Zettler and Nagel, as applied to claims 1 and 30, and in further view of Balban (3,863,208). Regarding claims 2, 3, and 31, Yoneda, as modified above, teaches everything noted above except that the reaction system includes a capacitor adapted to store electrical charge and to trigger the disabling of the cutting tool upon discharge of the at least part of the electrical charge and were the control system is configured to determine the capacitance of the capacitor. Yoneda, as modified above, also fails to expressly teach that the reaction system includes a fusible member and where the control system is configured to determine the condition of the fusible member. Yoneda, as modified above, teaches that the motor is disabled if the brake or the reaction system does not properly function. Yoneda, as modified above, also teaches that the electric circuit provides the single for disabling the motor. Yoneda does not expressly teach that electric circuit has a capacitor that discharges part of it discharge for triggering the disabling of the cutting tool. However, Balban teaches a system to monitor an electric circuit including a sensing portion for circuit malfunctions and provide a warning system to the operator vehicle. Balban also teaches a control system that monitors the electric charge level in the capacitor of a reaction system. Balban also teaches that the capacitor triggers the firing circuit responsible for inflating a confinement adjacent the vehicle steering wheel. Balban also teaches that reaction system includes a fusible member F1-F4 and where the control system is configured to determine the condition of the fusible member. It should be noted that the control system monitors the whole electric circuit for malfunctioning. Therefore, the condition of fuse of the reaction system inherently is determined by the control system. See Figs. 1-4 and col. 2, lines 21-47 and col.3, lines 42-58

in Balban. It would have been obvious to one skilled in the art at the time of the invention to equip the reaction system with the capacitor and fuse, as taught by Balban, in order to disable the cutting tool with an electric circuit that can be monitored for malfunctions and consequently enhance the safety system of the cutting tool.

Response to Amendment

6. Applicant's arguments with respect to claims 1, 20, 28, and 30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dow et al. (3,886,413), Matos et al. (5,791,441), Phillips (4,152,833), and Herman (4,937,554) teach a cutting tool including a safety system having a reaction system, a control system, and detecting system.

Loshhugh (3,580,376), Hurst, JR (3,439,183), Pacholok (5,503,059), Howard et al. (4,262,278), Miller (3,246,205), Seeley et al. (3,035,995), Tholome Roger et al. (4,672,500), and Eccleston (5,741,048) teach a reaction system including a capacitor and a fuse.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (too-free).

GA/ga

July 1, 2005

BOYER D. ASHLEY
PRIMARY EXAMINER